

Proposed
GRADE 6

From Molecules to Organisms
STRUCTURE & FUNCTION - SCALE

MS-LS1-1: Cell Theory
MS-LS1-2: Cell Parts and Function
MS-LS1-3: Interacting Body Systems
MS-LS1-8: Information Processing

Growth & Genetic Variation
CAUSE & EFFECT

MS-LS1-5: Environmental and Genetic Growth Factors
MS-LS1-4: Animal Behaviors and Plant Structures - Reproductive Success
MS-LS3-2: Asexual and Sexual Reproduction

Thermal Energy
ENERGY & MATTER

MS-PS3-3: Thermal Energy Transfer Solution
MS-PS3-4: Thermal Energy Transfer
MS-PS3-5: Energy Transfer to or from an Object

Earth Systems - Weather and Climate
SYSTEMS & PATTERNS

MS-ESS2-4: Cycling of Water Through Earth's Systems
MS-ESS2-5: Interacting Air Masses and Weather
MS-ESS2-6: Atmospheric and Oceanic Circulation

Human Impact
Cause & Effect

MS-ESS3-5: Causes of Global Warming
MS-ESS3-3: Human Impact on the Environment
MS-ESS3-4: Human Consumption of Natural Resources
MS-ESS3-2 Natural Hazards

GRADE 7

Structure of Matter

STRUCTURE & FUNCTION

MS-PS1-1: Atomic Composition Model

MS-PS1-3: Synthetic Materials

Matter and Chemical Reactions

SCALE, PROPORTION, QUANTITY

MS-PS1-2: Chemical Properties and Reactions

MS-PS1-4: Thermal Energy and Particle Motion

MS-PS1-5: Conservation of Atoms in Reactions

MS-PS1-6: Thermal Energy Design Project

Cycles of Matter and Energy Transfer in Ecosystems

ENERGY & MATTER

MS-LS1-6: Photosynthesis - Matter Cycling and Energy Flow

MS-LS1-7: Food and Chemical Reactions

MS-LS2-3: Matter Cycling and Energy Flow in Ecosystems

Ecosystem Dynamics, Functioning, and Resilience

CAUSE & EFFECT

MS-LS2-1: Effects of Resource Availability

MS-LS2-2: Interdependent Relationships in Ecosystems

MS-LS2-4: Ecosystem Interactions and Dynamics

MS-LS2-5: Biodiversity and Ecosystem Services Solutions

Earth's Place in the Universe

PATTERNS

MS-ESS1-1: Earth-Sun-Moon System

MS-ESS1-2: Gravity and Motions in Space

MS-ESS1-3: Scale Properties in the Solar System

Human Impact

Cause & Effect

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Earth Systems - Plate Tectonics

PATTERNS

MS-ESS1-4: Geologic Time Scale

MS-ESS2-1: Cycling of Earth's Materials

MS-ESS2-2: Geoscience Processes at Varying Scales

MS-ESS2-3: Evidence of Plate Tectonics

MS-ESS3-1: Uneven Distribution of Earth's Resources

Patterns of Evolution

PATTERNS

MS-LS4-1: Fossil Evidence of Common Ancestry and Diversity

MS-LS4-2: Anatomical Evidence of Evolutionary Relationships

MS-LS4-3: Embryological Evidence of Common Ancestry

MS-LS4-4: Natural Selection

MS-LS4-5: Artificial Selection

MS-LS4-6: Adaptation of Populations over Time

MS-LS3-1: Mutations - Harmful, Beneficial or Neutral

Forces and Interactions

CAUSE & EFFECT

MS-PS2-2: Forces, Mass and the Motion of an Object

MS-PS2-3: Electric and Magnetic Forces

MS-PS2-4: Gravitational Interactions

MS-PS2-5: Electric, Magnetic, and Gravitational Fields

Energy and Forces

SCALE

MS-PS3-1: Kinetic Energy of an Object

MS-PS3-2: Potential Energy of the System

MS-PS2-1: Collision Design Solution

Waves and Their Applications in Technology

PATTERNS

MS-PS4-1: Wave Properties

MS-PS4-2: Wave Reflection, Absorption, and Transmission

MS-PS4-3: Digitized Wave Signals

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Ashland Middle School Scope & Sequence

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GRADE 6 Image

6

Structure
Function

Scale
Proportion
Quantity

Cell State and Function

Interacting Body Systems

Animal Behavior
Plant Structures

Information Processing

Cell Theory

Asexual and Sexual Reproduction

Environmental and Genetic Growth Factors

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Energy
Matter

Thermal Energy Transfer

Thermal Energy Transfer Solution

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Systems
system Models

Patterns

Atmospheric and Oceanic Circulation

Interacting Air Masses and Weather

Cycling of Water Through Earth's Systems

Causes of Global Warming



